

Soft X-ray Spectromicroscopy and Laminography at the Swiss Light Source

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Amphithéâtre SOLEIL

The strong absorption rate and detailed spectroscopy of soft X-rays make them an excellent probe for nanoscale materials characterisation. The PolLux scanning transmission X-ray microscope (STXM) at the Swiss Light Source is optimised for measurements of organic materials at the carbon K-edge (~ 300 eV), and magnetic materials at the iron and nickel L-edges (~ 700 eV and 850 eV) with a routine spatial resolution of about 30 nm (record is 7 nm). We have recently developed 3D imaging via laminography - similar to the better-known tomography, but with the sample rotation axis not perpendicular to the axis of the probe beam. The laminography geometry provides a number of advantages, such as allowing samples to be supported on a planar substrate and avoiding collisions between the sample and optics. Details of the laminography implementation will be presented together with illustrative results and lessons on the technical challenges posed by the experiments and data analysis.

Further, the design and first commissioning results of the newly built SOPHIE STXM/ptychography endstation will be presented. SOPHIE is currently being installed at the SoftiMAX beamline in Sweden where it will be further commissioned and available to users during the SLS2.0 upgrade shutdown.



Ce séminaire sera suivi d'une pause café

SEMINAIRE

Formalités d'entrée : accès libre dans l'amphi du pavillon d'Accueil.

Si la manifestation a lieu dans le Grand Amphi SOLEIL du Bâtiment Central merci de vous munir d'une pièce d'identité (à échanger à l'accueil contre un badge d'accès).

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